

REMARKS

Claims 3 to 6, 12, 13, 17, 19 to 22 and 27 through 35 continue to be under consideration.

Claims 3, 5, 12 and 17 are amended.

2. Claims 3-6 stand finally rejected under 35 U.S.C. 103(a) as being unpatentable over Lampke, US Patent No. 2,808,749.

Applicants respectfully disagree.

Lampke a meets all of the limitations of the claims 3 and 5, i.e., power wrench comprising a handle containing a motor, (e.g., 67); a ratchet extension (41) attached to the handle; a ratchet extension shaft (55) attached to the handle and a ratchet head (1); and the ratchet head (1) attached to the extension and the shaft, wherein the extension and the shaft are removable; a plurality of removable extension (41, 67, 81) and a plurality of removable shafts (55, 77) each separately

removable; lever arm having first and second configurations (Figs. 1 and 4); capable of attaching the sleeve to another sleeve for forming different length lever arm (Fig. 3, sleeve attachment devices, threaded sockets 5, male and 49, female), except for disclosing the for a length of the sleeve to be equal to that of the shaft. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention with regards to dimension or desired size, e.g., same length for the shaft and the sleeve in adapting the tool for a particular application, since such modification would have involved a mere change in the size of a component.

Applicants respectfully disagree.

It is submitted that it would not merely the size of a component. Taking for example the length of the drive shaft 55 in Fig. 3 of Lampke, a change of length would entail changes of the following elements: spline connection 66, power shaft 65, suitable chuck 67, socket 49, ball bearing unit 51.

A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA1955); and since it would have been "obvious to try"- choosing from finite number of identified, predictable solutions, with a reasonable expectation of success.

There is no reasonable expectation of success in changing in the Lampke reference just the length of the drive shaft 55. Numerous other parts would need substantial changes.

Lampke meets the limitations of claims 4 and 6 except for disclosing an extension and a shaft having a length between 6 to thirty inches, and for disclosing the range or a specific size of the plurality of extensions; obvious modification to one of ordinary skill in the art dependent on work-piece/operational parameters as indicated in previous Office actions and above.

There is no suggestion in the Lampke reference to furnish extensions, which can be cumulative when applied in sequence.

3. Claims 12, 13, 17, 19-22 and 27-35 stand finally rejected under 35 U.S.C. 103(a) as being unpatentable over Lampke in view of Hendrickson.

Applicants traverse the reference Lampke as above.

Lampke meet the limitations of the above claims, e.g., in Fig. 3, handle (63); handle drive shaft (65); handle sleeve mounting collar (68); extension sleeve (41) with first end formed with an interface collar (49) attached to mounting collar (68) and second end formed as in interface thread (45); extension shaft (55) having first end (61) and second end (47) disposed parallel and centered to the extension sleeve; shaft drive tang (57); ratchet head having a socket mount (33) and a threaded collar (5) attached to the sleeve interface thread (45); head drive shaft (15) connected to shaft drive tang (57); wherein the shaft is unsupported apart from the support (including bearings) furnished by the drive shaft and extension shaft and by the ratchet head to the extension shaft; and wherein the handle is directly attachable to the head (Fig. 5); except for disclosing an air power wrench and for disclosing a drive socket attached to the first end of the extension shaft and connected to the drive shaft (65) protruding from the handle (63) and for the length of the engagement points of the sleeve and the shaft.

Applicants urge that the exceptions kindly indicated by the Examiner are substantial. The importance of the ratchet as an air power wrench is associated with the possibility given by the extension to reach screws and bolts in inaccessible locations. The length of the engagement points of the sleeve and shaft is important because it allows to employ pairs of sleeves and shafts, where the pair can have any desired extension length and wherein two such pairs can be coupled to have a multiple extension.

Hendrickson teaches connecting the drive shaft to the handle and to the head using corresponding socket and boss means.

With regards to choosing a size of the sleeve and shaft, it is noted that it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention with regards to dimension or desired size, e.g., using the same length for the engagement points of the shaft and the sleeve in adapting the tool for a particular application, since such modification would have involved a mere change in the size of a component.

As pointed out above, modifications of the Lampke reference to obtain the present invention would be numerous. It would not have been just the length of the extension shaft which would be involved, but for example all components on the right hand side of Fig. 3 of the reference Lampke would have to be changed.

A change in size is generally recognized as being within the level of ordinary skill in the art. *In re* Rose, 105 USPQ 237 (CCPA1955) and since it would have been "obvious to try"-choosing from finite number of identified, predictable solutions, with a reasonable expectation of success.

It would not have been obvious to try to change the Lampke reference by eliminating the ball bearings 47 and 51 from the Lampke reference. It would not be obvious to make the drive shaft 55 and the handle 41 of the Lampke reference of the same length.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a pneumatic wrench and socket and boss connection means as taught by Hendrickson, 04:56 in adapting the invention for application requiring pneumatic drive and in ease of assembly/production.

The Hendrickson reference refers in column 46, line 56 to employing the angle head extension for wrenches of the Hendrickson reference in connection with electrical or pneumatic power sources or with hand powered tools.

It is a salient point of the present invention to furnish easy and reliable extensions of rotary drives. The Lampke reference requires even in cases where no extension is required to employ an additional “shorter drive shaft 77”.

Lampke modified in view of size and in view of Hendrickson meets the limitations of claim 13, e.g., the types of connections having similar constructions between the head and the handle.

The gear operated power wrench of the Lampke reference and the angle head extension for wrenches of Hendrickson present different structures which do not combine. These references have different shaft and sleeve structures and operate in different ways. The reference Hendrickson according to column 2, lines 58 to 62 there is provided an angle head extension for power wrenches and transmission of rotation from a shaft member to a socket. The reference Lampke is according to column 1, lines 22 and 34 to 35 is most interested in shortening a wrench.

Lampke modified by Hendrickson as described meets all of the limitations of claims 17,19-22 and 33-35, e.g., no contact between the shaft and the sleeve.

The Hendrickson reference teaches in column 3, lines 44 to 46 that a hollow drive shaft 15 is concentrically disposed in the hollow portion of drive shaft housing 2. This drive shaft 15 is apparently supported by the drive shaft housing 2. According to the reference Hendrickson, column 4, lines 24 to 34, removal of the drive shafts 11 and 15 and subsequent repositioning of the drive shafts 15 and 11 back into the housing 2 develops

pressure within the drive shaft housing 2 which forces lubrication through the oil passageway. Thus apparently the drive shaft 15 is lubricated moving in the housing 2. This means that the drive shaft 15 is supported by the housing 2 and by the oil lubrication. According to the reference Hendrickson, column 4, lines 47 to 51, "Ball bearing 31 is positioned between conical member 53 and shaft 15 thereby facilitating relative rotation between shaft 11 and shaft 15.". Thus the ball bearing 31 is supporting drive shaft 15 according to the Hendrickson reference.

It is submitted that where the references applied each provide for ball bearing support of a drive shaft, that a person of ordinary skill in the art would also construct a shaft with ball bearing support. A person of ordinary skill in the art would not employ the teaching of the references applied without ball bearing support. Therefore, the absence of ball bearing support in the claims of the present application is clearly novel and unobvious.

With regards to claims 27, 32 and 35, Lampke modified by Hendrickson meets all of the limitations except for not using bearings; however eliminating the bearings, to save manufacturing costs, would have been obvious to one of ordinary skill in the art; and providing a plurality of differently sized extensions for convenience of a kit would have been obvious to one of ordinary skill in the art.

Applicants respectfully disagree. A removal of bearing support from the teaching of the references Lampke and Hendrickson is by no means a trivial matter. Bearing support is generally provided with the goal of stabilizing rotation and there is no indication in the references Lampke and Hendrickson that ball bearing support is an optional feature as is indicated with respect to other features. If it would be only a question of saving manufacturing costs by elimination of superfluous parts, the references probably would have said so. Here the allegation of savings in manufacturing

costs appears to be pure hindsight, which is not based on the teaching of the references Lampke and Hendrickson.

Reconsideration of all outstanding rejections is respectfully requested.

Respectfully submitted,

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